HAGERMAN NATIONAL FISH HATCHERY

Fiscal Year 2010

Summary of Operations and Expenditures

Working Collaboratively to Ensure Viable Populations of Fish for the Future

CONSERVING AMERICA'S fisheries

INTRODUCTION

The Hagerman National Fish Hatchery (Hatchery) is located along the Snake River, about 30 miles west of Twin Falls, Idaho at a point three miles south and two miles east of Hagerman, Idaho. The Hatchery was authorized by 46 Stat, 371 on May 21, 1930 and was established in 1932. Construction of the physical facilities commenced in 1932; fish production began in 1933. The primary goal of the Hatchery, at that time, was the production of rainbow trout for stocking in Idaho, eastern Oregon, and northern Nevada.

In the late 1970s the Hatchery became part of the Lower Snake River Compensation Plan (LSRCP) which was authorized by the Water Resources Development Act of 1976, Public Law 94-587. The LSRCP is designed to mitigate for fish and wildlife losses caused by the construction of four dams on the lower Snake River. For its part in the LSRCP program, the Hatchery's primary production goal was changed from resident rainbow trout to steelhead trout. The Hatchery was extensively remodeled during 1984 to accommodate this change.

There are 78 outside raceways at the Hatchery. Of these, 66 are devoted to LSRCP steelhead production and 12 are reserved for other programs which the Fish and Wildlife Service (Service) deems appropriate. During Fiscal Year (FY) 2010, rainbow trout for the Dworshak Reservoir Mitigation program were reared in these raceways. Other major facilities include two hatchery-rearing buildings with a total of 60 rearing tanks, a water chiller building, an administration-visitor facility building, a combination shop/four-stall garage, four residences, a flammable storage building, and three general storage buildings.

The Hatchery's water supply emanates from the Eastern Snake Plain Aquifer via a complex of springs at a constant 59 degrees Fahrenheit with a flow rate of approximately 30,000 gallons per minute.

Located adjacent to the Hatchery is the Hagerman Fish Culture Experiment Station (HFCES). This research facility is owned and operated by the University of Idaho. The water rights and diversions for this facility are owned by the Fish and Wildlife Service and administered through the Hatchery.

STATION OPERATIONS

The LSRCP established a mitigation goal for the Hatchery program of 13,600 adult steelhead returning above Lower Granite Dam. However, within the framework of the LSRCP, specific objectives and tasks for the Hatchery's steelhead production program are established through a high degree of interagency coordination. Results of this coordination affect certain aspects of the program such as total number and strain reared, time and size at release, and location of release. During FY 2010, the LSRCP office coordinated the Salmon River Annual Operating Plan with the Idaho Department of Fish and Game (IDFG), the Shoshone/Bannock Tribes, and the Nez Pierce Tribe. This planning process is used to accomplish and document the Hatchery’s steelhead production program.

The Hatchery also produces rainbow trout for the Dworshak Reservoir Mitigation program as an in-kind exchange with the IDFG. The trout are released into southern Idaho reservoirs; fish reared at the IDFG Nampa State Fish Hatchery are released into Dworshak Reservoir. The program calls for releasing sub-catchable trout in the spring and catchable trout in the fall. The Hatchery conducts relevant coordination on this program directly with the IDFG resident trout programmatic staff.

FISH CULTURE OPERATIONS

Pertinent fish rearing information for all species held on station during FY 2010 is presented in Table 1.

Steelhead

Brood Year 2010 Steelhead

Water available to the Steelhead Raceways during peak steelhead production ranged between 60 to 61 cfs from February to April 2010 which was similar to 2009 (Figure 1). However, given the 10-year declining water supply trend and recent fish health issues, the Hatchery cut production by 100,000 smolts for BY2010 to compensate for the longer term trend of declining water supply:

Target steelhead smolt production Hagerman National Fish Hatchery, BY09-10

		Total Smolts	
Release Site	**Stock**	**BY2009**	**BY2010**
East Fork Salmon R. Weir	East Fork Natural	170,000	170,000
Salmon R. Sec. 18 Tunnel Rock	Sawtooth A	60,000	-
Sawtooth Weir	Sawtooth A	790,000	750,000
Yankee Fork	Sawtooth A	440,000	440,000
	Total	1,460,000	1,360,000

The Pacific States Marine Fisheries Commission marking crew ad clipped and coded-wire tagged the steelhead fingerlings August 9-15th and August 23-25th (10-85-82, 10-88-82, and 10-15-82 codes for SAW stock; 10-01-10, 10-01-11, and 10-19-81 codes for EFH stock; 10-89-82, 10-90-82, and 10-12-83 for YF stock). Both the Marking and Hatchery crews were split to work two separate shifts within the 6 am – 11pm work day in order to complete tagging in a reasonable time frame. Several tanks of East Fork Hatchery stock were too small (<160 fpp) for marking, requiring the mark crew to return to finish marking on September 1st. Overall, marking went very well again this year using the Mass Automated Tagging System (MATS) trailers. Inventory numbers were adjusted to match final marking numbers.

Indoor Feeding

The Hatchery Review Team (HRT) recommended installing shade covers over the raceways at the Hatchery (Recommendation HA10). The HRT believes the lack of shade covers over the raceways increase fish crowding, potentially increasing stress and disease risks to steelhead juveniles. Dorsal fin erosion has commonly been associated with lack of shade covers.

However, based on observations made at the Hatchery and past published literature, the most practical option for reducing dorsal fin erosion may be to reduce aggression by increasing feeding rates during the period of the production cycle when soreback is most prevalent (September to December). To assess benefits of shading, the Hatchery is comparing fin indices of fish grown indoors at restricted and satiated diets in 2x2' tanks in the Hatchery 2 building.

Brood Year 2009 Steelhead

The Hatchery experienced several disease outbreaks and sporadic elevated mortality levels throughout BY2009 that were controlled with several treatments of antibiotics and chemical therapeutics. Furunculosis outbreaks were treated with Aquaflor® on the top deck on 10/5/09, the middle and bottom deck on 10/26/09, and spot treated multiple raceways on the top and middle deck on 2/5/10. Additional furunculosis outbreaks were treated with Romet® in raceways 57 and 58 on 11/26/09 followed by a facility wide treatment with Romet® at the end of December. During March and April 2010, 1st-use raceways were treated with Cloramine-T® and potassium permanganate for gill disease, columnaris, and problems associated with steatitis.

Summary of chemical treatments for Furunculosis (*Aeromonas salmonis)*, Hagerman NFH BY09.

Date Treated	Raceways	Therapeutic Chemical	Duration	Treatment Rate (ppm)
10/5/2009	37-58	Aquaflor	10 days	10mg/kg fish
10/26/2009	59-102	Aquaflor	10 days	10mg/kg fish
11/26/2009	57-58	Romet	5 days	50mg/kg fish
12/25/2009	37-102	Romet	5 days	50mg/kg fish
2/5/2009	37-40, 63	Aquaflor	10 days	10mg/kg fish

Summary of chemical treatments for gill disease, columnaris, and problems associated with steatitis used in raceways stocked with low or normal early rearing densities, Hagerman NFH BY09.

Date	Raceway	Therapeutic Chemical	Treatment Rate (ppm)	Notes
3/6/2010	37,39	Chloramine T®	15	3 days
3/9/2010	40,42	Chloramine T®	10	3 days
3/13/2010	53	Potassium Permanganate	0.5, 1.0, 2.0	See note*
3/14/2010	38	Potassium Permanganate	0.5, 1.0, 2.0	See note*
3/23/2010	54	Potassium Permanganate	0.5, 1.0, 2.0	See note*
3/30/2010	45,46	Potassium Permanganate	0.5	3 days
3/31/2010	51,52,55,56,58	Potassium Permanganate	0.5, 1.0, 2.0	See note*
4/5/2010	50,57	Potassium Permanganate	0.5, 1.0, 2.0	See note*
4/14/2010	47,48,49	Potassium Permanganate	0.5, 1.0, 2.0	See note*

*Treatment rate: 0.5 ppm (Day 1), 1.0 ppm (Day 2), and 2.0 ppm (Day 3)

The Hatchery believes two underlying factors affected BY09 fish health. First, the Hatchery exceeded its carrying capacity due to declining spring flows; and second, chronic infection with *Nucleospora salmonis* compromised the fish's ability to fight infection. Both of these issues were identified by the HRT (Recommendations HA11 and HA5).

In February 2010 there were several other confounding circumstances observed surrounding the skin sloughing/columnaris/steatitis symptoms:

1) *Aquaflor® Treatment*

In late January, Kathy Clemens, Idaho Fish Health Center, identified a return epizootic of furunculosis which was determined to be resistant to Romet®. As a result, the Hatchery treated eight raceways on the upper and middle banks with Aquaflor® (February 5-15th). These raceways responded quickly to the treatment and mortality declined to 1-2 fish per raceway/day within the first 4 days. However, on the fifth and sixth days of this treatment, mortality increased in half of the treated raceways. By the end of the 10-day treatment, the mortality rate had doubled over the pre-treatment rate. These fish exhibited the skin sloughing characteristics. To further confound the issue these eight raceways had been previously treated with antibiotic; once with Romet® during December and once with Aquaflor® during November.

2) *Vegetation Die-off*

Prior to and during the mortality increase, cloudy weather and diminished sunlight during the first two weeks of February appeared to cause an aquatic vegetation and algae die-off in the spring ponds (Bickel and Riley) and raceways. The decomposing vegetation increased the Biological Oxygen Demand and instantaneous dissolved oxygen levels dipped below 6 ppm in the effluent of the lower deck of raceways (third-use water) which may have added stress to the fish.

3) *Epizootics in the Vicinity*

Conversations with hatchery managers representing both conservation and commercial production facilities in our vicinity, indicates a recent prevalence of similar skin sloughing problems.

The Idaho Fish Health Center took several samples in February to determine the cause of the skin sloughing and mortality issues. The exams of moribund and dead fish identified secondary invaders; Columnaris (*Flavobacterium columnare)* and bacterial gill disease affecting the gills and present on the exposed skin lesions. The Idaho Fish Health Center also observed steatitis symptoms which could be a potential cause or contributing factor to the skin sloughing. Steatitis can be caused by a deficiency in Vitamin E or from feed rancidity. Feed samples sent to Abernathy Fish Technology were not found to be nutritionally deficient or rancid. The Hatchery did not have archived feed samples of feed fed prior to February available for analysis.

The Hatchery Evaluation Team (HET) completed several studies with BY2009 Steelhead:

Carrying Capacity Evaluation

To evaluate carrying capacity, the Hatchery conducted an ongoing study (BY07-11) comparing Smolt to Adult Returns (SARs) of steelhead reared on the upper deck (1st use water) versus the lower deck (3rd use water). The 2010 year was the first return year of this study (BY07 1-ocean adults). The 2010 adult steelhead returns over Lower Granite Dam broke all previous records. Because the Sawtooth Fish Hatchery (FH) anticipated record returns to their hatchery rack and an increase workload, several Hatchery crew members completed work details at Sawtooth FH to help with CWT sampling and spawning. However, adult rack returns were not as high as expected. Preliminary CWT returns at the Sawtooth FH rack suggested a rack SAR of 0.6% for smolts reared on the upper deck and 0.7% for smolts reared on the lower deck. These SAR's were not statistically different ($p=0.14$).

The HET decided to end this study two years early in BY2009. The sample size of 80,000 marked with CWT's did not provide enough statistical power to demonstrate significant differences between the two decks. In the future, the HET will develop a new experimental design to compare SAR's of steelhead reared on the upper and lower decks.

Low Hatchery Tank Density Rearing

The HRT recommended reducing rearing densities in the hatchery tanks to reduce fish stress (Recommendation HA7). To test this hypothesis, a portion of the fingerlings were ponded in the Steelhead raceways when their hatchery tank Density Index was 0.61-0.75. The remaining fingerlings were kept in the hatchery tanks until ad clipping and coded wire tagging operations in mid-August at a Density Index around 0.8. Raceway survival was significantly lower for steelhead reared at lower early rearing densities. The Hatchery hypothesized the additional handling stress from two transfers instead of one and dissolved oxygen and temperature fluctuations in spring ponds during July and August may have caused the lower survival rates.

Single Use vs Multi-Use Needles During PIT Tagging

The HET compared on-station survival and wound recovery of steelhead smolts PIT tagged with pre-loaded (single-use) PIT tag needles supplied by Biomark (www.biomark.com) to standard multi-use PIT tag needles. On-station survival post PIT tagging was 96.9% for smolts tagged with single-use needles and 96.4% for smolts tagged with multi-use needles. Mean incision length was 2.50 mm for both groups. Mean incision width was significantly ($p<0.05$) wider for multi-use needles (0.86mm vs 0.52mm). Multi-use needles also produced more qualitative ragged incisions (44% vs. 3%). At 7 days post tagging, only 18% of ragged incisions had healed compared to 44% of clean incisions. Despite wider wound width and higher percentage

of ragged incisions, we did not observe a difference in healing time between the single-use and multi-use methods. Approximately 30% of wounds were healed seven days post-tagging and 97% were healed by 14 days post-tagging for both groups. Single-use needles produced narrower and cleaner incisions, but both methods produced satisfactory results in this study.

Single-Use PIT Tag Method

Multi-Use PIT Tag Method

PIT Array

The Hatchery worked with Steve Yundt, Lower Snake River Compensation Plan Office, and Carl Stiefel, Idaho Department of Fish and Game, to install and operate a PIT tag array on the fish pump during fish distribution. With four antennas installed, the array achieved an average detection efficiency of 92%.

PIT Tag Array system

The array also found 25 of the 100 PIT tags the Hatchery had planted on the raceway bottom to check the efficiency of the magnetic sweepers for shed PIT tags. The PIT tags were "planted" in December 2009 and detected by the PIT tag array in April 2010. The only obvious explanation is that these tags were ingested by the steelhead smolts and were carried in the gastrointestinal system for almost 5 months!

Brood Year 2009 Steelhead Distribution

Table 3 contains steelhead distribution data. The Hatchery hauled steelhead from April 12th to May 12th. Overall, steelhead distribution went very well using four transport trailers. Releases between May 5 and 12 were made into the Yankee Fork acclimation ponds. Cold temperatures during this period reduced flow in the river, subsequently lowering water level in the acclimation pond which caused smolts to be temporarily trapped in the pond. Fortunately, warmer

temperatures and work by the Shoshone Bannock Tribes', Fish and Wildlife staff restored flow into the acclimation ponds. The smolts were migrating out of the pond by May 17, 2010.

Rainbow Trout

Brood Year 2010 Rainbow Trout

The Hatchery released 37,469 (12.6 fpp, 5.5") spring fingerling rainbow trout to the Snake River at the Tilden Bridge on May 24th and 37,625 (15.0 fpp, 5.2") spring fingerling rainbow trout to Lucky Peak Reservoir on May 25, 2010. The Hatchery was below the release goal of 90K fingerlings because of poor hatching success (81%).

Brood Year 2009 Rainbow Trout

The Hatchery released 27,545 rainbow trout at Chesterfield Reservoir (3 trips) and 16,021 trout in Lake Walcott (2 trips) during the second week of October. Overall, the trout hauling went extremely well with only 19 hauling mortalities. The Hatchery retained 295 rainbow trout for outreach purposes including a fish dissection class for Filer Elementary in partnership with the National Park Service and Idaho Parks and Recreation. In January, the Hatchery coordinated with IDFG to release 252 remaining 13.5" trout in to the Filer Fishing ponds.

Hatchery Practices

Hatchery Water Supply, Water Quality, & Water Rights

The Brailsford Ditch Company (BDA) called for water from Len Lewis Spring on March 30th. At this time the Hatchery had its full complement of steelhead production. This resulted in implementation of a 1997 water management agreement between the Hatchery and the BDA. The agreement allows the Hatchery to divert water from this spring, out of priority during the irrigation season, as long as water (10cfs) is pumped back to the BDA pipeline. This was the first time the pumpback system was operated continuously under the agreement since its installation ten years ago. The Hatchery operated in this mode for 36 days resulting in an electricity cost of $4,600.

The Comprehensive Aquifer Management Plan (CAMP) process, led by the State of Idaho, has bogged down and has not produced any measurable increase in spring flow. Most notably, the Idaho Legislature has stopped funding the facilitators who were contracted for the CAMP process. On the local level, interest remains high in support of aquifer recharge. In an effort to increase information regarding recharge, the Idaho Department of Water Resources in conjunction with Idaho Power Co. proposed a study to inject fluorescein dye into the aquifer as a tool to "quantify hydrologic parameters and flow regime characteristics". There are two concerns for the Service over the use of the dye: 1) What effect will it have on the Bliss Rapids

snail, *Taylorcocha serpenticol*, which inhabits the springs and is listed as Threatened under the Endangered Species Act and 2) What affect will it have on the steelhead smolts held at the Hatchery. Two separate studies were conducted in an attempt to answer these questions. First, Dr. Christine Moffitt, University of Idaho, tested the toxicity of the fluorescein dye on a surrogate species; the ashy pebblesnail, *Fluminicola fuscus*. Although the study is under peer review, preliminary results indicate snail mortality occurred at much higher concentrations than is anticipated to be present in the spring discharge. Second, the Abernathy Fish Technology Center evaluated the sub lethal effects of Fluorescein dye on the smoltification of hatchery steelhead. Three treatments were exposed to 0.1 ppm, 1.0 ppm, and 10.0 ppm for one hour. The smolts were monitored for five weeks and then sampled for Na^+,K^+ -ATPase (NKA). They found that Atpase activity of steelhead "…was affected by fluorescein immersion an hour after exposure", however these effects were dependent on concentration and found to be transitory. The full report may be found on the hatchery's web site:

http://www.fws.gov/hagerman/documents/HET/Taylor_Hanson2010Hagfluorescein.pdf

The Hatchery continues to monitor dissolved oxygen, total gas saturation, ammonia, and total nitrate in addition to water quality sampling for the NPDES permit.

NPDES permit

The Hatchery attained certification from the Environmental Protection Agency (EPA) to submit Discharge Monitoring Reports electronically via NetDMR. At this time, the Hatchery is also required to submit the DMRs in hard copy format.

Salt Bath Study

Kyle Hansen, Abernathy Fish Technology Center, tested the effectiveness of a salt bath recovery on steelhead smolts. His experiment used a standard stressor of 120 seconds of air exposure followed by a salt recovery bath for 10 minutes and a control of no salt recovery. Kyle then took cortisol levels of the smolts at various intervals up to 24 hours post air exposure. His results suggest that short duration salt baths are not beneficial to recovery after a stress event. The report is available at: http://www.fws.gov/hagerman/documents/HET/Hanson_Salt_Study09.pdf

FISCAL OPERATIONS

Personnel

Table 5 provides a summary of staffing for the Hatchery for FY 2010.

Training

Table 6 provides a summary of training received by the Hatchery employees during FY 2010.

Fiscal Data

Table 7 presents an itemization of Hatchery expenditures for FY 2010.

FACILITIES MAINTENANCE AND CAPITAL OUTLAY

Hatchery #2 Roof

A contractor replaced the roof, installed loading dock railings, and replaced the doors in Hatchery #2. The project was designed and inspected by Marv Henry, Region 1 Engineering. The roof had been leaking in several areas and the doors were barely functional and did not meet safe egress requirements. The doors were replaced and new locks to match the A1 keys universal to the rest of the facility. The railings were installed on the loading dock to meet OSHA requirements.

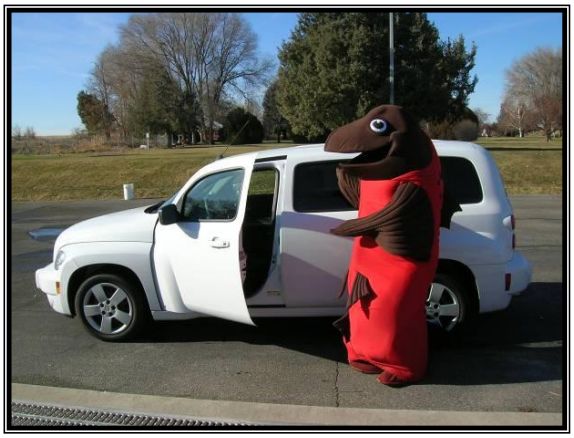
New Roof

New Handrails

Spring 13 Cover

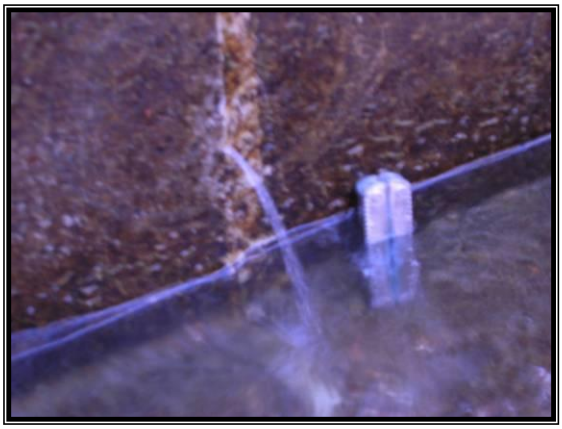
Contractors completed covering the Spring 13 collection box. A cover over the spring box is needed to eliminate algae growth. Clumps of algae were breaking off and plugging water lines in Hatchery #2. The Hatchery lost an entire tank (23,000) of East Fork Natural fingerlings in August 2009 because of a plugged pipe. These fish are listed as Threatened under ESA.

Vehicles



Via the ARRA/GSA program, the Hatchery exchanged a 1997 Ford Expedition for a 2009 Chevy HHR (aka. clown car). The hatchery also traded a Dodge Ram pick-up for a Chevy pickup.

Expansion Joint Repair



The Hatchery de-watered the Steelhead raceways and found several substantial leaks in the sikoflex caulking. Water had accumulated under the roadways through the expansion joints and was draining into subsequent decks of raceways. The Hatchery put together an emergency Scope of Work to hire a contractor to remove and replace the expansion joint caulking during late June.

Transport Trailers

The Hatchery removed the old pneumatic knife gates and replaced them with new valves on Transports #319, #469 and #480. The old knife gates were leaking large amounts of water past the seals and could not be re-built. The Hatchery also installed handrails on the catwalks on all the tankers.

New Handrails

New Knife Gate Valves

New Lawn Tractor

The Hatchery purchased a new Kubota Lawn tractor with a plow and bagger attachments to replace the John Deere 332 tractor.

Q5 and Q7 Driveway Repair

Quarters Driveways Q5 and Q7 were replaced in June 2010 by an IDIQ contractor. Yerba Buena, Salt Lake City, Utah won the bid. The large crew made quick work of the concrete pouring.

Genie S40 Manlift

The Lower Snake River Compensation Plan office purchased a used manlift to replace the old unit. The manlift is shared between several state and federal hatchery facilities in the Magic Valley.

Valve Repairs

The Hatchery replaced several valves on the irrigation/heat pump/fire suppression line near Quarters #7 and on the tank fill pipeline.

OTHER ITEMS OF INTEREST

Vacuum System

The Hatchery crew tested a vacuum system for cleaning raceways. After several modifications to wheels, pumps, and handles, the crew has a somewhat usable device. As part of the vacuuming system, the crew also removed the intake splash boards to scour solid accumulation from the head-end of the raceways. The vacuum system remains relatively labor-intensive, requiring 4-times the man hours of traditional sweeping. However, the system uses a fraction of the water and produces a much more concentrated effluent when compared to the "traditional" pond sweeping method.

Flammable Building

The Hatchery received a new modular flammable building to store flammable liquids. This unit replaces a concrete block and wood structure which no longer met code requirements for that purpose.

Tumbleweed Removal

The Hatchery staff worked with Bruce Palmer, IDFG, to remove tumbleweeds that had become trapped on the roadway adjacent to Service Property (Service lands managed by IDFG as part of the Hagerman Wildlife Management Area). Several adjacent landowners contacted the Hatchery and IDFG, concerned that the tumbleweeds were creating a safety hazard for motorists. The Hatchery is working with Lance Roberts, US Fish and Wildlife Service, Zone Fire Management Officer, to develop a plan in concert with IDFG to control tumbleweeds which are a fire hazard when accumulated along the fence line.

Bickel Ditch

The Hatchery contacted IDFG to repair a leak in Bickel Ditch. Under a 1984 agreement the hatchery diverts water via the ditch to Oster Lakes and for irrigation for the Hagerman Wildlife Management Area. Deterioration of the ditch bank has precluded the Hatchery from diverting the full 8.2 cfs water right this year. This summer, the Hatchery was able to divert only 5.5 cfs because of the leaks. The IDFG repaired one leak near the Hatchery's front gate, only to discover another leak behind Quarters #4. The Hatchery staff met with IDFG, Region 4, (Magic Valley Region) staff to discuss options to repair Bickel Ditch.

LHO

The Hatchery received two Low-Head Oxygenation (LHO) boxes from Magic Valley Fish Hatchery. The Hatchery will experiment with the LHO system during BY2010 rearing. Oxygen levels in the third deck are reaching, and at times exceeding, levels considered stressful for rearing steelhead.

Uncommon Find

WHOA!

The Hatchery staff found this visitor near Bickel Spring after it was accidently hit by a vehicle. The last Western Rattlesnake at the Hatchery was encountered over 20 years ago. This snake was likely chasing the exploding sagebrush vole population in the Hagerman Valley. The Hatchery trapped 240 voles that invaded the grounds.

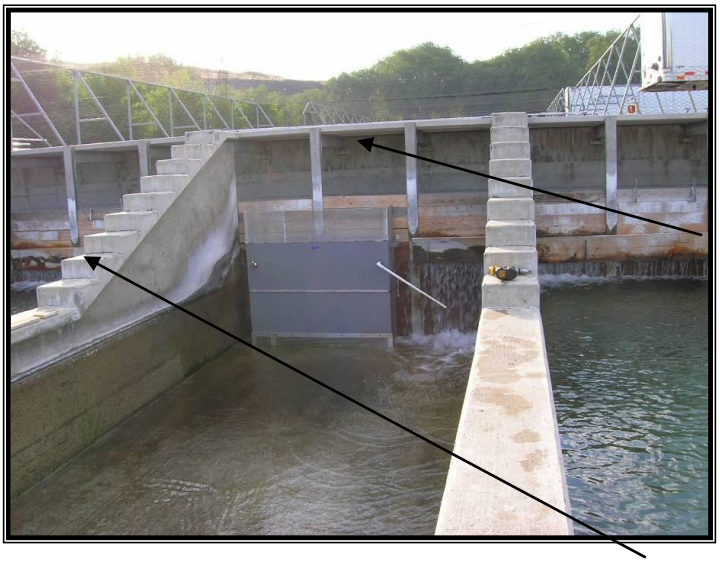
Wildland Fire - *Smoke Filling the Hagerman Valley* →

Anna Ray performed a one-week detail for the Shoshone, ID Bureau of Land Management (BLM) South Central Idaho Interagency Dispatch Center (SCIIDC). Her assistance provides FWS in-kind services in lieu of funds in support of the SCIIDC. Anna worked as a dispatch receptionist and as part of the EDRC (Expanded Dispatch Recorder) team for the

Long Butte fire which burned 306,113 acres of grass and sagebrush including areas of the National Park Service (NPS), Hagerman Fossil Beds National Monument.

Safety

Bryan Kenworthy, Project Leader, and Nathan Wiese, Assistant Project Leader participated in a conference call with the Boise, Idaho OSHA office regarding inspection findings. The Hatchery received two Notices of Unsafe Working Conditions. The first was for not guarding every flight of stairs having four or more risers with standard stair railings (29 CFR 1910.23 (d) (1). The second notice was a repeat violation for not guarding open sided floors and/or platforms four feet or more above the adjacent ground level with railings (29 CFR 1910.23(c)(1)). Both violations originated from conditions on the Steelhead Raceway walls which were constructed in 1984. The Hatchery worked with the Regional Safety Office to develop an abatement plan that is being considered by OSHA. The abatement plan includes installing steps and railings (18" wide grip strut and rail on one side) on the raceway steps and providing removable hand rails on the head and tail boxes. Initial cost estimates for the abatement plan were $400,000. The Hatchery has requested an extension to the September 15, 2010 abatement deadline until next May and June when the work can be completed.



Unprotected fall hazard greater than 4 feet

Too many steps without a handrail (> 4 risers)

College of Southern Idaho Cooperative Internship Agreement

Miles Mullenix continued as the College of Southern Idaho student intern during FY2010.

Outreach and Partnerships

The Hatchery continued its partnership with the Hagerman Fossil Beds National Monument, NPS and the Thousand Springs State Park. Quarterly meetings reviewed coordination of school group tours in 2010 and expanded upon the theme to "*Connect Students With Hagerman*

Resources". As part of the effort the partners established a busing grant program to subsidize field trips. Significant cuts to Idaho School District resources have seen the elimination of the annual school field trip. Because of the programs popularity, a "Field Trip Request Form" was created which outlines the program's requirements and controls the geographical area. This year's program worked with 32 school groups.

Boise Northstar Charter School Tour

H.A.W.K. Program

The Hatchery participated in numerous CPWN activities in FY 2010. Hatchery staff and volunteers worked 242 hours towards CPWN activities reaching over 3700 individuals. This was an increase of 50 hours and over 1,000 people from last year.

Annual Fish Dissection Presentation

Annual Free Fishing Day

Hatchery Hosts

The Volunteer Host program was unable to recruit a couple for the summer. We had narrowed the selection down to two couples and were, at the "last minute", refused by both. It was identified that we need to recruit sooner and improve the benefits of our program to compete with Refuges and other Federal agencies. As a result, and in alignment with policy, the Hatchery will make volunteer position offers in October and offer a volunteer stipend to mobile volunteers as outlined in "Volunteer Reimbursement Guidance" memorandum dated August 25, 2009 and FWS /ANRS-VSC/041990.

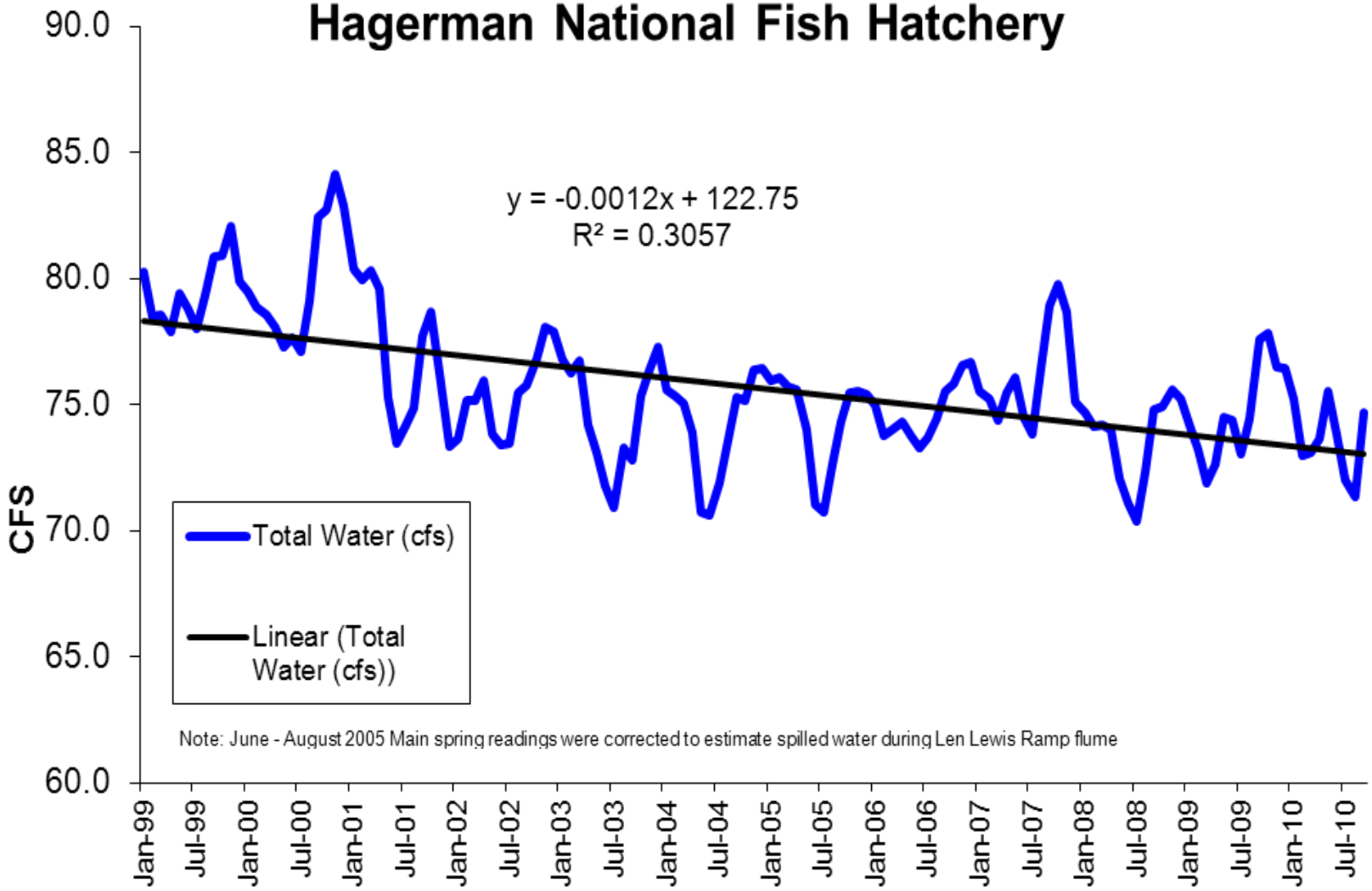


Figure 1. Average monthly spring flows tributary to Riley Creek, Hagerman

Hagerman National Fish Hatchery

Table 1. Hatchery Production Summary as of September 30, 2010

Station: Hagerman National Fish Hatchery					PERIOD COVERED: Oct 1, 2009 THRU Sept 30, 2010					
	Fish on Hand:				To Date Totals:					
Species/Strain & Lot Number	Number	Weight	Length	D.I.	F.I.	Weight Gain	Feed Pounds	Feed Costs	Conv.	Percent Survival
SST-SAW-09-ID-128	0	0	0.00	0.00	0.00	265,049	284,985	$127,791.81	1.08	91.45
SST-EFH-09-ID-129	0	0	0.00	0.00	0.00	25,807	27,920	$12,271.89	1.08	77.25[a]
SST-SAW-10-ID-131	1,186,814	24,153	3.80	0.04	0.33	23,764	23,847	$18,253.02	1.00	95.50
SST-EFH-10-ID-132	165,099	3,053	3.68	0.03	0.33	3,007	3,009	$2,441.30	1.00	95.87
RBT-T9-10-ID-130	41,379	16,060	9.38	0.35	0.35	21,480	23,080	$11,884.00	1.07	95.67
Total/Averages	**1,393,292**	**43,266**	3.372	0.084	0.202	**339,107**	**362,841**	**$172,642.02**	**1.07**	**91.15**

[a] 23,531 EFH's were lost on 8/23/2009 due to a plugged hatchery pipeline. Survival without accident: 92.3%.

Hagerman National Fish Hatchery

Table 2. Eyed eggs received at Hagerman NFH during Fiscal Year 2010

Species	Stock	Lot No.		No. Eggs	% Survival to Hatch
Rainbow Trout	Hayspur T9 Triploid	RBT-T9-10-ID (Lot 130)		140,705	86.5%
			Total	**121,741**	
Steelhead	Sawtooth[1]	SST-SAW-10-ID (Lot131)		1,304,874	96.4%
Steelhead	East Fork Hatchery[2]	SST-EFH-10-ID (Lot 132)		181,045	95.6%
			Total	**1,431,135**	

[1] Spawned and incubated at Sawtooth Fish Hatchery.
[2] Adults trapped at East Fork weir and eggs incubated at Sawtooth Fish Hatchery.

Hagerman National Fish Hatchery

Table 3. Steelhead Distribution During Fiscal Year 2010

Lot / Strain	Type of release	River/Site	Weight (lbs)	Number	#/lb	Length in	Length mm	Date(s)
128 SST-SAW-09-ID								
		Salmon River						
Sawtooth	Direct	Sawtooth Fish Hatchery Weir	183,720	797,057	4.34	8.53	217	4/13/10 - 4/30/10
Sawtooth	Direct	Tunnel Rock	14,575	66,418	4.56	8.40	213	4/12/10
Sawtooth	Direct	Yankee Fork	93,130	427,440	4.59	8.39	213	5/05/10 - 5/12/10
129 SST-EFH-09-ID								
		East Fork Salmon River						
East Fork Hatchery	Direct	East Fork Salmon River Weir	27,830	120,918	4.34	8.54	217	5/03/10 - 5/04/10
		Total	**319,255**	**1,411,833**				

Hagerman National Fish Hatchery

Table 4. Rainbow Trout Distribution During Fiscal Year 2010

Lot / Strain	Reservoir	Site	Weight (lbs)	Number	Length (in)	Date(s)
Lot 127 RBT-T9-09-ID	Chesterfield Reservoir	Boat Launch	12,855	27,545	9.98	10/05/09-10/07/09
Lot 127 RBT-T9-09-ID	Lake Walcott	Gifford Springs	6,510	16,021	9.53	10/08/09-10/09/09
Lot 130 RBT-T9-10-ID	Snake River	Tilden Bridge	2,915	37,469	5.49	5/24/10
Lot 130 RBT-T9-10-ID	Lucky Peak	Boat Launch	2,505	37,625	5.21	5/25/10
		Total	**24,785**	**118,660**		

Hagerman National Fish Hatchery

Table 5. Report of Station Personnel During Fiscal Year 2010

Part I - Permanent Personnel (FTE's: 8.0)				
Name of Employee	**Functional Title**	**Grade**	**Period Worked**	**Remarks**
Bryan Kenworthy	Project Leader Fish Biologist (Supervisory)	GS0482/13/07	10/01/2009 - 09/30/2010	
Nathaniel J. Wiese	Fish Biologist (Supervisory)	GS0482/11/04	10/01/2009 - 09/30/2010	
Brian P. Clifford	Motor Vehicle Operator	WG5703/08/05	10/01/2009 - 09/30/2010	
Adam Leija	Animal Caretaker	WG5048/04/02	10/01/2009 - 09/30/2010	
Stephen W. Money	Maintenance Mechanic	WG4749/10/05	10/01/2009 - 09/30/2010	
Anna M. Ray	Fisheries Program Assistant	GS0303/06/09	10/01/2009 - 09/30/2010	
Jeremy Trimpey	Fish Biologist	GS0482/09/02	10/01/2009 - 09/30/2010	
Eric W. Willet	Motor Vehicle Operator	WG5703/06/05	10/01/2009 - 09/30/2010	
Part II - Temporary Personnel (FTE's: 0.5)				
Andy R. Eiman	Animal Caretaker	WG5048/02/01	01/19/2010 - 07/18/2010	

Hagerman National Fish Hatchery

Table 6. Personnel Training during Fiscal Year 2010

Brian Clifford:
60th Annual Northwest Fish Culture Conference @ Redding, CA – December 1-3, 2009
FISSA & Privacy and Records Management @ DOI Learn – February 9, 2010
ManLift safety and new equipment orientation / Western States Equipment – March, 2010

Andy Eiman (TEMP):
2009 Federal Information Systems Security Awareness / DOI Learn – January 19, 2010
2009 Records Management Awareness / DOI Learn – January 19, 2010
2009 Orientation to the Privacy Act / DOI Learn – January 19, 2010
Sawtooth Fish Hatchery spawning detail – April 13, 2010

Bryan Kenworthy:
EEO – The Salmon Forest / DCR – October 16, 2009
EEO – Harassment in the Workplace / DCR – November 5, 2009
EEO – Issues Dealing with Reprisal / DCR – November 5, 2009
EEO – Anatomy of EEO Complaints / DCR – November 5, 2009
EEO – Interactive DVD / DCR – November 5, 2009
EEO – Reasonable Accommodations / DCR – November 5, 2009
Pre-Retirement Training – March 22-26, 2010
FISSA & Privacy and Records Management @ DOI Learn –April 19, 2010
EEO – 7 Profiles in Change / DCR – July 12, 2010
EEO – African American Lives / DCR – July 1-30, 2010

Adam Leija:
FISSA & Privacy and Records Management @ DOI Learn –February 9, 2010
World Aquaculture Society Academy (presenter) @ San Diego, CA – March 1-5, 2010
ManLift safety and new equipment orientation / Western States Equipment – March, 2010
Sawtooth Fish Hatchery spawning detail – April 13, 2010
Wage Grade Professionals Workshop @ NCTC – July 26-30, 2010
Spring Creek NFH spawning detail – September, 2010

Hagerman National Fish Hatchery

Table 6. cont. Personnel Training during Fiscal Year 2010

Stephen Money:
Heavy Equipment Train-the-Trainer @ Corvallis – November 01, 2009
Pesticide Applicator Workshop – February, 2010
ManLift safety and new equipment orientation / Western States Equipment – March, 2010
FISSA & Privacy and Records Management @ DOI Learn –April, 2010
Computer Literacy Skill Development / CSI - 2010
Computer Keyboarding / CSI online self-study - 2010

Anna M. Ray:
Hyperion (DataMart) Training @ Regional Office – January 28-29, 2010
FISSA & Privacy and Records Management @ DOI Learn –February 23, 2010
FBMS Blueprinting Workshop @ PDX RO – June 14-18, 2010
BLM Interagency Fire Detail – Shoshone / Long Butte Fire

Jeremy Trimpey:
FISSA & Privacy and Records Management @ DOI Learn –February 10, 2010
FY2010 Fisheries Academy @ NCTC – March 1-12, 2010
Sawtooth Fish Hatchery spawning detail – April 04, 2010
EPA Workshop @ Hood River – May 17, 2010
SAMMS detail @ Arlington, VA – June 6-25, 2010

Hagerman National Fish Hatchery

Table 6. cont. Personnel Training during Fiscal Year 2010

Nathaniel Wiese:
EEO – The Salmon Forest / DCR – October 16, 2009
EEO – Harassment in the Workplace / DCR – November 5, 2009
EEO – Issues Dealing with Reprisal / DCR – November 5, 2009
EEO – Anatomy of EEO Complaints / DCR – November 5, 2009
EEO – Interactive DVD / DCR – November 5, 2009
EEO – Reasonable Accommodations / DCR – November 5, 2009
Project Leader Academy @ NCTC – Feb 22 – March 05, 2010
FISSA & Privacy and Records Management @ DOI Learn – July 7, 2010
EEO – 7 Profiles in Change / DCR – July 12, 2010
EEO – African American Lives / DCR – July 1-30, 2010

Eric Willet:
60th Annual Northwest Fish Culture Conference @ Redding, CA – December 1-3, 2009
FISSA & Privacy and Records Management @ DOI Learn – February 10, 2010
ManLift safety and new equipment orientation / Western States Equipment – March, 2010
Sawtooth Fish Hatchery spawning detail – April 21, 2010

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Table 7a. Funding Fiscal Year 2010

			Comments
14230-1936-0300:			
Salaries, OT, Awards, Benefits		$644,658	
Travel/Tuition		$18,907	
Utilities		$28,267	
Steelhead Fish Food		$145,836	
Distribution		$32,723	
Production Expense		$18,467	
Repairs & Maintenance		$31,553	
Fuels & Oils		$15,019	
Office Admin/Misc. Services		$20,424	
CSI Coop. Agreement		$9,377	
Outreach / Volunteers		$4,953	
Sub-Total 1936-0300 O&M Expenses:		***$972,083***	
Sub-Total 1936-0300 CIP (see Table 7b)		***$55,600***	
TOTAL 1936-0300 Funding:		***$1,025,784***	

(continued next page)

Hagerman National Fish Hatchery

Table 7a. Funding Fiscal Year 2010 (continued)

			Comments
Other Funding Sources:			
Dworshak Mitigation RBT 14230-1932-1019		$37,500	
MVFH distribution contract 14230-1936-0021		$104,801	10181-6-M231
Quarters Funding 14230-8610-0000 (see Table 7b)		$28,034	$7,729 Forward to FY2011
LSRCP / ManLift 14110-1936-0015		$23,635	10181-A-M443
CPWN Grant: Free Fishing Day 10102-1111-0000		$625	
CPWN Grant: Busing 10102-1111-0000		$900	Hagerman IDEA Agreement
Youth & Careers in Nature Funding 14230-1311-1YCN		$0	$10,000 returned unused
Sub-Total Other Funding Source Expenses:		***$195,495***	
GRAND TOTAL All Funding:		***$1,221,279***	

Hagerman National Fish Hatchery

Table 7b. Capital Improvement Projects FY2010

			Comments
14230-1936-0300:			
Hatchery #2 Screens		$3,275	10181-A-M331
Transport Trailer rehab		$20,212	
Transport Handrails		$2,984	
Irrigation Valves		$3,000	
Kyocera multi-function copy machine		$5,823	10181-A-M642
Server		$3,217	
Kubota Lawn Tractor		$15,300	
Total 1936-0300 CIP Expenses:		***$55,600***	
14230-8610-0000:			
Quarters Driveways – Q5 & Q7		$22,968	10181-A-Y329
Misc. Quarters Repairs – Q4, Q5, Q6, & Q7		$5,066	
Total 8610-0000 Expenses:		***$28,034***	
TOTAL All Capital Improvements:		***$83,634***	